



# Tribology Division

## The Tribology Division of ASME International

### Mission:

- The Tribology Division is established to serve the members of ASME who have designated their interest in Tribology, the multidisciplinary science of interacting surfaces in relative motion with such associated matters as design, friction, wear and lubrication.

### Scope of Activity:

The ASME Tribology Division exists to serve its members by:

- Gathering and disseminating knowledge in Tribology in all forms of publication.
- Organizing knowledge in Tribology for educational purposes.
- Exchanging knowledge in Tribology by personal interaction in technical expositions.
- Developing opportunities to interact with the international Tribology community.
- Identifying, honoring and publicizing the notable accomplishments of its members.
- Aiding in setting directions in the research and development of Tribology.

## Publications – To monitor and arrange for the publication and recognition of tribology-related materials of interest to the membership.

### Duties:

- Publish literature of interest to the tribology community, including
  - ASME Journal of Tribology (JOT)  
One of the most respected archival journals in the field of tribology, JOT publishes over 100 outstanding technical articles of permanent interest to the tribology community annually, and attracts articles by tribologists from around the world.
  - ASME Tribology Division Newsletter & Website <http://divisions.asme.org/Tribology/>

### Benefit:

- Enhance ASME's International reputation of leadership in archiving and distributing innovative technical knowledge.

## Education – To promote tribology education at the university level.

### Duties:

- Evaluate the results of a web-based survey, driven by the ASME Tribology Division, to assess the current state of tribology education for graduates and undergraduates.
- Organize a workshop for academicians and industrial leaders for the purpose of establishing a uniform curriculum addressing the basics of tribology.
- Meet the needs of the ASME International membership for continuing education in tribology

### Benefit:

- Ensure that ASME International provides educational products of relevance to the tribology community.

## Membership – To increase the number and involvement of Tribology Division members.

### Duties:

- Develop plans for increasing the number and involvement of Division members.
- Prepare publicity brochures, in cooperation with the Publications Committee, to attract new members to the Division.
- Develop and implement plans and strategies to attract members from various specialties within Tribology.

### Benefits:

- Increase the membership of ASME.
- Ensure that the tribology communities within Industry, Government, Academia, and Student constituents throughout the world fully utilize the programs and benefits offered by ASME.

## Technical Expositions – To facilitate the planning and promotion of technical conferences and other forums of information exchange.

### Duties:

- Develop and market conferences of interest to the tribology community, including
  - STLE/ASME International Joint Tribology Conference

### Benefits:

- Ensure that the leading conferences in the discipline of tribology are organized and sponsored by ASME International.
- Preserve ASME International's reputation of technology leadership in all areas of mechanical engineering.

## International Coordination – To facilitate and promote collaborations of interest to the international tribology community.

### Duties:

- Involve ASME members in international tribology-related activities, including the International Tribology Council, OECD Wear Group, and VAMAS-Wear Standards Group.
- Recognize achievements of ASME tribologists throughout the world.
- Generate an international forum for the exchange of tribology-related information.
- Establish an international link for ASME members to collaborate on funded joint research projects, workshops, and educational activities.

### Benefits:

- Increase the international membership of ASME International.
- Enhance ASME International's reputation of technology leadership throughout the world.

## Honors & Awards – To identify, recognize and publicize the notable accomplishments of the Division's members.

- **Mayo D. Hersey Award** – The highest Tribology honor given by ASME International for distinguished and continued contributions to the advancement of lubrication science and engineering.
- **Burt L. Newkirk Award** – An ASME International honor given to one who is of the age of 40 or younger, who has made a notable contribution advancing tribology through research/development.
- **Marshall B. Peterson Award** – An ASME International honor given to one who is of the age of 30 or younger, who has made a notable contribution advancing tribology through research/development.
- **Donald L. Wilcock Distinguished Service Award** – An ASME Tribology Division honor given to an individual for distinguished service to the Division and the tribology community throughout his or her career.

## Research on Tribology – To identify the needs and opportunities for research and development in the discipline of tribology.

### Duties:

- Provide periodic assessments of recent developments in science and technology that relate to the discipline of tribology.
- Recommend new approaches in tribology that merit consideration by the science and technology communities, including government funding agencies.
- Select recipients of the Innovative Research Award, given to an individual or a group for a recent major contribution to the discipline of tribology.
- Organize special workshops or sessions facilitating technology development.

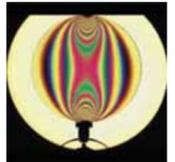
### Benefit:

- Ensure that ASME International is at the leading edge of technology research, development and promotion in all tribology-related technology and policy areas.

## Contact Mechanics – To promote interest in, and visibility of, a variety of established and emerging areas in contact mechanics.

### Duties:

- Organize technical sessions and symposia for the ASME/STLE Tribology Conference, in such areas as friction modelling, nano-contact mechanics, contact phenomena in MEMS, and friction-induced vibration.
- Unify the segmented efforts of theoretical and applied contact mechanics, so as to become the premier source for its presentation and discussion.
- Recruit tribologists from the contact mechanics community, so as to encourage their involvement in ASME Tribology Division activities.



### Benefit:

- Ensure that ASME International is at the leading edge of technology research, development and promotion with respect to theoretical & applied contact mechanics.

## Magnetic Storage – To promote close cooperation and exchange of technical information among participants in the international magnetic storage community.

### Duties:

- Organize an annual symposium for the ASME/STLE International Joint Tribology Conference, which is internationally recognized as the forum for addressing tribological issues in magnetic storage.
- Select recipients of the Seagate Award, given for life-long contributions to the advancement of tribology as applied to magnetic storage devices.
- Recruit tribologists from the magnetic storage technical community, so as to encourage their involvement in ASME Tribology Division activities.



### Benefit:

- Ensure that ASME International is at the leading edge of technology research, development and promotion with respect to the tribology of magnetic storage.

## Rolling Bearing Life – To facilitate the planning, promotion, and development of forums and standards associated with the subject of rolling-element bearing performance.

### Duties:

- Devise enhancements to the software version of ISO 281/2: Rolling Bearings - Dynamic Load Ratings.
- Participate in ABMA Educational Symposia.
- Develop a forum for understanding the role of lubricant formulation in surface durability.
- Develop validation methods for ISO 281 Product Rating Standard.
- Promote and develop technical sessions for the Joint Tribology Conference.



### Benefit:

- Ensure that ASME International is at the leading edge of technology research and technical standards development with respect to rolling-element bearing longevity.

## Wind Energy Tribology – To facilitate the promotion of tribological problems and the emergence of solutions linked to the wind energy technology.

### Duties:

- Continuously monitor the wind energy market to assess the tribological technical needs.
- Conduct symposium, paper and panel sessions at the ASME/STLE Tribology Conference to support the Wind Energy market
- Develop design methodologies and technologies to address the micropitting problems currently found in gearbox bearings and gears.
- Recruit new members from this emerging field of engineering.



### Benefit:

- Position ASME Tribology Division as a leader in wind energy tribological solutions.

## Nanotribology and Micro/Nano-Systems – To facilitate the promotion of tribological problems and the emergence of solutions linked to the wind energy technology

### Duties:

- Promoting close cooperation and exchange of technical information among researchers, academics and developers.
- Conduct symposium, paper and panel sessions at the ASME/STLE Tribology Conference in collaboration with other Technical Committees.
- Conduct a completely new format of session - a Nanotribology Tutorial/ Panel Session.
- Recruit new members.

### Benefit:

- Ensure that ASME International is the leader of tribological researches and innovations in nano and micro systems.